# SUMMARY OF WATER CONDITIONS
## May 1, 2004 (see below for updates)

April continued in the warm dry pattern established in March. The only break was a spell of cool showery weather the third week of the month. Snowpack melting continued at much above normal April rates and only about half the April 1 pack remained on May 1. Snowmelt runoff seems to be about one month early this year and can be expected to taper off relatively early. Runoff forecasts were lowered because of the dry April and still show a strong north to south gradient, much below average in the southern half of the State. Reservoir storage is near average which will help meet most water needs this year, but supplies in the southern part of the Central Valley and eastern Sierra region may be short.

***Forecasts*** of April through July runoff are 65 percent of average overall, ranging from near normal in the Trinity and the northern Shasta Lake tributaries to 55 percent in the southern Sierra. Water year forecasts are somewhat better at 80 percent of average statewide.

***Snowpack*** water content dropped at about double the normal rate in April and now stands at about 50 percent of average for May 1 overall or 40 percent of the average for April 1. The rapid rate of melting swelled monthly streamflow to near normal on a number of major snow fed rivers in spite of the lack of rain. Last year the pack was 105 percent of average at this time as a result of a wet cool April.

***Precipitation*** from October 1 through April 30 was about 90 percent of average compared to110 percent one year ago. Precipitation during April was only 50 percent of average statewide, barely three quarters of average in the far northwest and little in the south, apart from the Colorado Desert Area at 400%.

***Runoff*** so far this year has been about 90 percent of average compared to 100 percent at this time last year. Runoff during April was nearly 80 percent of average for the month. Estimated runoff of the 8 major rivers of the Sacramento and San Joaquin River regions was 2.7 million acre-feet during April. The May estimate of the Sacramento River Index at the 90% exceedence level is 15.6 MAF and the May San Joaquin 60-20-20 Index at the 75% exceedence level is 2.2.

***Reservoir storage*** gained about 0.4 million acre-feet during the month, to end at just over average for the date. This was less than the normal gain of about 1.4 million acre feet expected in April. With the reduction in expected late season snowmelt, not many of the major foothill reservoirs are likely to fill. Last year at this time, reservoir storage stood at 105 percent.

***This is the last monthly Bulletin 120 publication for the season. Updates will continue into June.***

**May 11, 2004**

The update includes the observed precipitation through May 11. The projected median April-July runoff now ranges from 84% (Lake Shasta) to 25% (Tule River). During the past week, light rain fell in the Northern Sierra watersheds. The Northern Sierra 8-Station Index gained about 0.9 inches (or about half of its mean rainfall for the month of May) during the recent week. As such, the median forecasts for the Northern Sierra remained level. Conversely, the Southern Sierra remained dry for the most part, and as a result, the forecasts for the Southern Sierra dropped 1-2%. The statewide snowpack is now 31% of average to date, and ranges from 48% in the northern Sierra to 19% in the southern Sierra.

## May 18, 2004

The update includes the observed precipitation through May 18. The projected median April-July runoff now ranges from 79% (Lake Shasta) to 25% (Tule River). During the past week, light rain fell north of the Yuba watershed. The Northern Sierra 8-Station Index gained about 0.2 inches during the recent week. As such, the median forecasts for the Northern Sierra fell. The Southern Sierra remained dry, and as a result, the forecasts for most Southern Sierra watersheds dropped four percent or less. The statewide snowpack is now 18% of average to date, and ranges from 37% in the northern Sierra to 11% in the southern Sierra.

## **May 25, 2004**

The update includes the observed precipitation through May 25. The projected median April-July runoff now ranges from 78% (Lake Shasta) to 23% (Tule River). During the past week, only small, scattered thundershowers occurred throughout the Sierra Nevada producing no widespread measurable precipitation. These storms resulted in slightly below normal temperatures. At this point in the year, however, precipitation effects are generally negligible and the forecast was based more on historical trends from previous years. As a result, the change to the median forecasts statewide range from down 2 percent to no change. The 90 percent exceedence forecast for several basins was raised by a percent or two. Again, analysis of historical runoff trends based on similar years helped determine the forecast. The statewide snow pack is now 13% of average to date, and ranges from 29% in the northern Sierra to 7% in the central and southern Sierra.

## **June 1, 2004**

The update includes the observed precipitation through June 1. The projected median April-July runoff now ranges from 77% (Lake Shasta) to 23% (Tule River). During the past week, a sizeable storm system moved through California on Thursday night and Friday morning producing a range from a few tenths to over an inch of precipitation in many basins. Below normal temperatures accompanied these storms, and some snow was produced in locations above 8000 feet. Despite the needed precipitation, the median forecasts remained even for the most part because precipitation effects are generally negligible and the forecast was based more on historical trends from previous years. Some forecasts for particular basins were adjusted as the FNF values for May have been

updated and reflected large enough changes from our previous estimates. In most basins, the trend continued of narrowing the probability ranges and adjusting the 90 and 10 percent exceedence levels as needed. The statewide snow pack is now all but exhausted. During the past week, temperatures finally warmed up enough to reach the snow at the extreme upper elevations, and as a result, in some basins, runoff increased sharply.

**June 8, 2004**

The June 8 Bulletin 120 forecast update is posted at http://cdec.water.ca.gov/cgi-progs/iodir/B120UP
The update includes the observed precipitation through June 8. The projected median April-July runoff now ranges from 76% (Lake Shasta) to 22% (Tule River). During the past week, only small, scattered thunderstorms moved through various parts of California. None of these storms accumulated enough precipitation to warrant major adjustments of the forecasts. Some forecasts for particular basins were adjusted as the FNF values for May and early June have been updated. In most basins, the trend continued of narrowing the probability ranges and adjusting the 90 and 10 percent exceedence levels as needed. Statewide, the snow pack has more or less depleted and runoff from melting snow should start to decrease in the few basins where enough snow was left to impact the FNF. For current snow pillow information see http://cdec.water.ca.gov/cgi-progs/current/PAGE6

The weather forecast for the next 10 days is for dry conditions throughout the state. The latest NWS Climate Prediction Center long-range weather forecast maps at http://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead01/off_index.html suggest above normal temperatures throughout most of California and an increased chance of below normal precipitation for the northern end of the state for the summer months.

This is the ***LAST*** Bulletin 120 Update for the season.